REMARKS

Claims 1 through 20 are pending in this application. Claims 1 through 13 and 15 are amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. Claims 16 through 20 have been newly added.

I. Withdrawal of Finality of Rejection

The Examiner stated that the Applicant's request for reconsideration of the finality of the rejection of the last Office action dated 06/01/2004 is persuasive and, therefore, the finality of that action is withdrawn.

The Applicant appreciates the Examiner's withdrawal of finality.

II. Claim Rejections - 35 USC § 103

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner stated that Cheney '283 teaches a signal-dispensing unit for dispensing an output signal output from a personal computer in the form of an analog or digital signal (e.g., figures 2-5; column 3, lines 22-40; column 5, column 6, lines 7-25; column 7, lines 19-37).

However, the uncompressed video is from the tv decoder DMSD 105 as seen in figure 3 and 4 and the analog or digital signal is digitized so it can properly be multiplexed in 2:1 MUX 202 which uses a pixel select control. The analog version of the uncompressed video will have to be converted to the a digital signal for use by the MUX which has the digital decompressed video to deal with and place it in picture format.

The Examiner further states that signal processing unit for performing picture-in-picture signal processing (e.g., figures 2-5; column 5; column 6, lines 25-67) enabling one of a digital .

personal computer signal generated by said signal dispensing unit and a decoded first signal input from an outside source to be displayed on a main screen and the other to be displayed on at least one sub-screen (e.g., column 5-6; column 7, lines 19-37), and for processing said first signal to be displayed along on said main screen, said first signal being any one of a television signal and a video signal (e.g., figures 2-5; column 6, lines 25-67).

It is not entirely clear which part the Examiner is referring to, however, we will assume that the Examiner is referring to the MUX 202 as both a signal processor and switching unit.

The Examiner goes on to state that the output unit for outputting an analog personal computer signal in response to a control signal for displaying only said personal computer signal, and outputting an output signal of said signal processing unit in response to a control signal for displaying said personal computer signal and said first signal in picture-in-picture format (e.g., figures 2-5; column 7, lines 1-37).

Again since it is not clear what the Examiner is exactly referring to as the outputting unit as col. 7, lines 1-37 deals with everything from the DMSD to the MUX 202, the Applicant will assume that the Examiner is referring again to the MUX 202.

However, the MUX 202 is not connected to the D/A converter and the signal dispensing unit and especially there is not a direct connection between both to accommodate the original analog signal from the personal computer to be outputted or the processed signal from the signal processing unit since the MUX 202 is outputting and processing the signals.

Moreover, the MUX 202 is dealing in the pure digital domain while the present invention has

an outputting unit that is dealing with purely analog signals of the first and second analog signals.

In addition, as claimed, both references do not provide the structure as claimed with the A/D converter to the signal processing unit to the D/A converter and then to the outputting unit which also receives a signal directly from the personal computer.

The Examiner stated that is unclear whether Cheney '283 teaches an outputting unit outputting said analog personal computer signal generated from said signal dispensing unit, where said signal dispensing unit dispenses an output signal output from a personal computer in the form of an analog signal. However, the Examiner states that Cheney '743 teaches an outputting unit outputting said analog personal computer signal generated from said signal dispensing unit, where said signal dispensing unit dispenses an output signal output from a personal computer in the form of an analog signal (See Cheney '743 column 11-12).

However, again it is not clear what particular part is being referred to as columns 11-12 have a broad set of disclosures. We assume that the Examiner maybe referring to the EGV port 210 and the DENC 225 of Cheney '743.

The Examiner goes on to state that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the video decode system chip of Cheney '743 into the Cheney '283 because Cheney '283 suggests a video decode system chip incorporating an EGV port into an integrated digital video decode system such as a set-top box to process uncompressed analog video stream, to synchronize the output video/audio presentation to the stream

and to mix/blend graphics into the output video stream, which may either comprise the uncompressed analog video stream or a merged picture-in-picture video stream including both the decompressed digital video and the uncompressed video wherein the blended stream is then output to the internal digital video encoder macro for encoding to television format and thus the analog channel is presented with the same graphical features, function and programming model capabilities as existing digital channels utilizing the integrated digital decode system (Cheney '283 column 8, lines 7-32).

However, if the Examiner is referring to an integrated set top box, moreover, this is also not teaching of a connection of the dispensing unit of the personal computer to the outputting unit to provide the pure analog original first signal and a separate unit for processing the picture in picture signal and then being later combined separately. The Cheney '283 and '743 references include many more additional connections that can further deteriorate the different signals. Combining the two references further increases the connections and signal path.

The Examiner further states that Cheney '283 and Cheney '743 further disclose the claimed limitation of a signal conversion unit for converting the picture-in-picture signal output from the signal processing unit into an analog signal before a signal is output from the outputting unit (e.g., Cheney '283 figure 2 and column 6, lines 1-50 and Cheney '743 column 10- 12 and Figs. 9-11).

However, again it is not totally clear which parts the Examiner is referring to for example col. 6, lines 47-50 to be more precise as there is a D/A conversion before output, but it is not clear what the Examiner is referring to as the outputting unit and therefore, the reference of output is very

general and vague. From that section, it could even be after the outputting unit and after the amplifying unit but before the display tube. Moreover, if there is a D/A converter before the outputting unit connected to the signal processing unit, no such structure is actually taught or suggested as the MUX 202 does both processing and outputting.

Looking at figure 6 of Cheney '743 and figure 4 of Cheney '283, the DENC 107, the D/A conversion is clearly not before reaching a switching or outputting unit as seen in figure 4.

The Examiner goes on to state that as regards to the signal processing within the MUX 202 or the video decode system chip, Applicant should refer to column 7, lines 19-37 of Cheney '283, which describes the Fig. 5, in Fig. 5 and column 7, lines 19-37 of Cheney '283, the video decoder/display and OSD logic 106 is modified to include the merging and blending capabilities; Cheney '283 teaches that, in this embodiment, a 2:1 MUX 202 as controlled by a processor generated "pixel select control" signal selects between the decompressed digital video, i.e., the decompressed video derived from the MPEG stream received through transport 103, or the uncompressed video, i.e., the analog (or digital) signal received through DMSD 105, therefore, the signal dispensing unit such as the DMSD can output an analog computer signal.

However, respectfully, if the DMSD is outputting the analog signal, then the MUX which incorporates the digital decompressed video from 103 would have difficulty in multiplexing the analog signal, even if it is possible. Moreover, the blending is more to do with the on screen display of 204. The logical structure of the present invention separates the analog signal from the digital

signals and properly processes them, while the mixing and matching given by the Examiner of different embodiments of Cheney may fail. As shown in the specification, Cheney '283 actually labels them alternative embodiments.

The Federal Circuit has mentioned that "[t]he test for obviousness is not whether the features of one reference may be bodily incorporated into another reference...Rather, we look to see whether combined teachings render the claimed subject matter obvious." *In re Wood*, 599 F.2d 1032, 202 USPQ 171, 174 (CCPA 1979) (citing *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549-50 (CCPA 1969); *In re Mapelsden*, 329 F.2d 321, 322, 141 USPQ 30, 32 (CCPA 1964).

However, here it is clear the mixing of different embodiments of Cheney '743 and '283 may be problematic. As mentioned in MPEP 706.02(j), the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. Here, it is clear that the Examiner is improperly using the Applicant's disclosure as a blue print from a rejection rather than looking to the teaching of the art.

The Examiner stated that such modification would have provided a means to use a clock tied to the input stream results in better output picture quality since dropping/repeating of frames to maintain synchronization is minimized (Cheney '743 column 10-11) and the configuration provides a means to deliver analog sourced input channel such as the analog computer signal to the internal DENC and provides a mixed mode video set-top box application to support viewing conventional analog channels without the added cost and complexity (Cheney '743 column 11).

However, even if there is the analog signal of the personal computer to the DENC, it is then

clearly not being switched between the other signals as connected to the other parts claimed. The Examiner is picking a choosing different parts. Moreover, the DENC is in addition to the Decoder display 106 shown alternatively in figure 5 with blended OSD which has no connections as claimed by the present invention.

The Examiner stated that Cheney '283 teaches that the MUX 202 selects between the digital signal received through transport 103 and the analog signal received through DMSD 105, and Cheney '283 further teaches the 'pixel select control' has three modes of operation which are set by the host processor and the host processor can set the pixel select control to (1) forward the decompressed video on to display, (2) forward the uncompressed video on to display or (3) support picture-in-picture display, dynamically selecting both the decompressed and uncompressed video for display and switching between decompressed and uncompressed video for simultaneous display at a rate according to the desired locations of the secondary picture (see Fig. 3), both Cheney '283 and Cheney '743 disclose an internal DENC for encoding the picture-in-picture signal output or to deliver a conventional analog signal to a display screen.

However, Cheney would have difficulty performing a picture in picture while modifying a both analog and digital signal. At one point, there has to be a conversion, otherwise, there cannot be the processing. Merely, taking word for word does not mean that the description will actually work as stated literally. Moreover, the uncompressed video is sent into the MUX for processing while in the present invention, the original analog signal from the personal computer is sent directly to the switching center and separately also sent to the signal processing unit through the A/D

converter which is distinguished from the structure of Cheney '283 and '743.

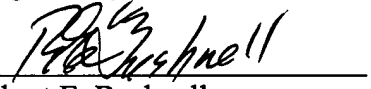
III. 37 C.F.R. §1.104

Respectfully, the response of the Examiner is incomplete. Further clarification by Examiner would be very helpful to the Applicant. Respectfully, the Examiner must provide the completeness in the rejection under 37 C.F.R. §1.104(b) and (c) in formulating the rejection. As mentioned in 37CFR §1.104 (c)(2), "When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable." The particular parts relied upon were not always mentioned and therefore it makes it difficult for the Applicant to respond to the Examiner's rejection. Many times in the rejection, general columns and figures were mentioned, but it was difficult to discern what particular parts the Examiner was referring to. The Applicant would greatly appreciate the Examiner's help in this matter for every section of the office action.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

A fee of $200.00 is incurred by this Amendment for the addition of one (1) independent claim above three (3). Applicant's check drawn to the order of the Commissioner accompanies this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



Robert E. Bushnell,
Attorney for the Applicant
Registration No. 27,774

1522 "K" Street, N.W., Suite 300
Washington, D.C. 20005
(202) 408-9040

Folio: P56597
Date: 2/11/05
I.D.: REB/SS